

Technology Metals Australia Limited (ASX:TMT)

March 2018

WHO IS IIR?

Independent Investment Research, "IIR", is an independent investment research house based in Australia and the United States. IIR specialises in the analysis of high quality commissioned research for Brokers, Family Offices and Fund Managers. IIR distributes its research in Asia, United States and the Americas. IIR does not participate in any corporate or capital raising activity and therefore it does not have any inherent bias that may result from research that is linked to any corporate/ capital raising activity.

IIR was established in 2004 under Aegis Equities Research Group of companies to provide investment research to a select group of retail and wholesale clients. Since March 2010, IIR (the Aegis Equities business was sold to Morningstar) has operated independently from Aegis by former Aegis senior executives/shareholders to provide clients with unparalleled research that covers listed and unlisted managed investments, listed companies, structured products, and IPOs.

IIR takes great pride in the quality and independence of our analysis, underpinned by high caliber staff and a transparent, proven and rigorous research methodology.

INDEPENDENCE OF RESEARCH ANALYSTS

Research analysts are not directly supervised by personnel from other areas of the Firm whose interests or functions may conflict with those of the research analysts. The evaluation and appraisal of research analysts for purposes of career advancement, remuneration and promotion is structured so that non-research personnel do not exert inappropriate influence over analysts.

Supervision and reporting lines: Analysts who publish research reports are supervised by, and report to, Research Management. Research analysts do not report to, and are not supervised by, any sales personnel nor do they have dealings with Sales personnel

Evaluation and remuneration: The remuneration of research analysts is determined on the basis of a number of factors, including quality, accuracy and value of research, productivity, experience, individual reputation, and evaluations by investor clients.

INDEPENDENCE – ACTIVITIES OF ANALYSTS

IIR restricts research analysts from performing roles that could prejudice, or appear to prejudice, the independence of their research.

Pitches: Research analysts are not permitted to participate in sales pitches for corporate mandates on behalf of a Broker and are not permitted to prepare or review materials for those pitches. Pitch materials by investor clients may not contain the promise of research coverage by IIR.

No promotion of issuers' transactions: Research analysts may not be involved in promotional or marketing activities of an issuer of a relevant investment that would reasonably be construed as representing the issuer. For this reason, analysts are not permitted to attend "road show" presentations by issuers that are corporate clients of the Firm relating to offerings of securities or any other investment banking transaction from that our clients may undertake from time to time. Analysts may, however, observe road shows remotely, without asking questions, by video link or telephone in order to help ensure that they have access to the same information as their investor clients.

Widely-attended conferences: Analysts are permitted to attend and speak at widely-attended conferences at which our firm has been invited to present our views. These widely-attended conferences may include investor presentations by corporate clients of the Firm.

Other permitted activities: Analysts may be consulted by Firm sales personnel on matters such as market and industry trends, conditions and developments and the structuring, pricing and expected market reception of securities offerings or other market operations. Analysts may also carry out preliminary due diligence and vetting of issuers that may be prospective research clients of ours.

INDUCEMENTS AND INAPPROPRIATE INFLUENCES

IIR prohibits research analysts from soliciting or receiving any inducement in respect of their publication of research and restricts certain communications between research analysts and personnel from other business areas within the Firm including management, which might be perceived to result in inappropriate influence on analysts' views.

Remuneration and other benefits: IIR procedures prohibit analysts from accepting any remuneration or other benefit from an issuer or any other party in respect of the publication of research and from offering or accepting any inducement (including the selective disclosure by an issuer of material information not generally available) for the publication of favourable research. These restrictions do not preclude the acceptance of reasonable hospitality in accordance with the Firm's general policies on entertainment, gifts and corporate hospitality.

DISCLAIMER

This publication has been prepared by Independent Investment Research (Aust) Pty Limited trading as Independent Investment Research ("IIR") (ABN 11 152 172 079), an corporate authorised representative of Australian Financial Services Licensee (AFSL no. 410381). IIR has been commissioned to prepare this independent research report (the "Report") and will receive fees for its preparation. Each company specified in the Report (the "Participants") has provided IIR with information about its current activities. While the information contained in this publication has been prepared with all reasonable care from sources that IIR believes are reliable, no responsibility or liability is accepted by IIR for any errors, omissions or misstatements however caused. In the event that updated or additional information is issued by the "Participants", subsequent to this publication, IIR is under no obligation to provide further research unless commissioned to do so. Any opinions, forecasts or recommendations reflects the judgment and assumptions of IIR as at the date of publication and may change without notice. IIR and each Participant in the Report, their officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law. This publication is not and should not be construed as, an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. Any opinion contained in the Report is unsolicited general information only. Neither IIR nor the Participants are aware that any recipient intends to rely on this Report or of the manner in which a recipient intends to use it. In preparing our information, it is not possible to take into consideration the investment objectives, financial situation or particular needs of any individual recipient. Investors should obtain individual financial advice from their investment advisor to determine whether opinions or recommendations (if any) contained in this publication are appropriate to their investment objectives, financial situation or particular needs before acting on such opinions or recommendations. This report is intended for the residents of Australia. It is not intended for any person(s) who is resident of any other country. This document does not constitute an offer of services in jurisdictions where IIR or its affiliates do not have the necessary licenses. IIR and/or the Participant, their officers, employees or its related bodies corporate may, from time to time hold positions in any securities included in this Report and may buy or sell such securities or engage in other transactions involving such securities. IIR and the Participant, their directors and associates declare that from time to time they may hold interests in and/or earn brokerage, fees or other benefits from the securities mentioned in this publication.

IIR, its officers, employees and its related bodies corporate have not and will not receive, whether directly or indirectly, any commission, fee, benefit or advantage, whether pecuniary or otherwise in connection with making any statements and/or recommendation (if any), contained in this Report. IIR discloses that from time to time it or its officers, employees and related bodies corporate may have an interest in the securities, directly or indirectly, which are the subject of these statements and/or recommendations (if any) and may buy or sell securities in the companies mentioned in this publication; may affect transactions which may not be consistent with the statements and/or recommendations (if any) in this publication; may have directorships in the companies mentioned in this publication; and/or may perform paid services for the companies that are the subject of such statements and/or recommendations (if any).

However, under no circumstances has IIR been influenced, either directly or indirectly, in making any statements and/or recommendations (if any) contained in this Report. The information contained in this publication must be read in conjunction with the Legal Notice that can be located at <http://www.independentresearch.com.au/Public/Disclaimer.aspx>.

THIS IS A COMMISSIONED RESEARCH REPORT.

The research process includes the following protocols to ensure independence is maintained at all times:

- 1) The research process has complete editorial independence from the company and this included in the contract with the company;
- 2) Our analyst has independence from the firm's management, as in, management/ sales team cannot influence the research in any way;
- 3) Our research does not provide a recommendation, in that, we do not provide a "Buy, Sell or Hold" on any stocks. This is left to the Adviser who knows their client and the individual portfolio of the client.
- 4) Our research process for valuation is usually more conservative than what is adopted in Broking firms in general sense. Our firm has a conservative bias on assumptions provided by management as compared to Broking firms.
- 5) All research mandates are settled upfront so as to remove any influence on ultimate report conclusion;
- 6) All staff are not allowed to trade in any stock or accept stock options before, during and after (for a period of 6 weeks) the research process.

For more information regarding our services please refer to our website www.independentresearch.com.au.

Contents

Vanadium on the Move.....	1
Key Points.....	1
SWOT Analysis	2
Overview	3
Strategy and Project Overview	3
Gabanintha Vanadium Project.....	4
Current and Upcoming Activities	10
Peer Group Analysis.....	10
Capital Structure	12
Risks	12
Board and Management	13
Vanadium and VRFBs.....	13

Note: This report is based on information as at 13 March 2018

Investment Profile	
Share Price - 12 March 2018	A\$0.335
12 month L/H	A\$0.175/\$0.365
Issued Capital*:	
Ordinary Shares (Inc Escrowed)	55.25m
Options (Inc Escrowed)	27.85m
Fully Diluted	83.10m
In Money Options (Inc. Escrowed)	14.85m
Market Capitalisation UD	A\$18.51m
Market Cap Diluted for In-Money Options	A\$23.58m
Cash 31/12/17	A\$1.012m
March 2018 Placement	A\$3.0 million
Cash on Option Conversion	A\$3.71m

*The capital structure is indicative pursuant to recent announcements

Board and Management	
Mr Michael Fry: Non-Executive Chairman	
Mr Ian Prentice: Executive Director	
Mr Sonu Cheema: Non-Executive Director and Company Secretary	

Major Shareholders*	
Twentieth Century Motor Company	26.3%
Station Nominees Pty Ltd	8.9%
Top 20	54.3%

*Figures are prior to the March 13, 2018 placement and March 9, 2018 vesting of 10m Performance Shares



Senior Analyst – Mark Gordon

The investment opinion in this report is current as at the date of publication. Investors and advisers should be aware that over time the circumstances of the issuer and/or product may change which may affect our investment opinion.

VANADIUM ON THE MOVE

Since listing in late 2016, Technology Metals Australia Limited (ASX: TMT, "Technology Metals Australia" or "the Company") has made considerable progress on the 100% owned Gabanintha Vanadium Project ("Gabanintha" or "the Project") in the Yilgarn Craton of Western Australia. This work has included ~12,000m of drilling, that has led to a Mineral Resource Estimate ("MRE") of 119.9Mt @ 0.8% V₂O₅, including a high grade massive magnetite basal zone of 55.0Mt @ 1.10% V₂O₅, one of the highest grade primary vanadium resources globally; 18% of the total and 26% of the high grade mineralisation is in the Indicated Resource category.

The resource is potentially of a size and grade that will support a long life operation, with timing right to take advantage of forecast increases in demand for vanadium from the current level of ~100,000tpa vanadium metal to ~131,000t in 2025. The market is currently in deficit, and much of the forecast growth is expected to be on the back of the anticipated growing vanadium redox flow battery sector, a potential disruptive technology in the grid scale electricity storage space.

Metallurgical test work to date has also been very positive, highlighting the potential to produce a high grade vanadiferous titanomagnetite concentrate, a key consideration for this type of project. These results, which include vanadium recoveries of up to 97.8% to a concentrate grade of over 1.3% V₂O₅ are being incorporated into a pre-feasibility study ("PFS"), which has recently commenced, and is planned to be completed in Q2, CY2018.

KEY POINTS

Forecast growth in vanadium demand from storage applications and rebar: Forecast global growth in electrical storage systems, including grid scale storage, should help drive vanadium demand over coming years, with some forecasters seeing a need for an additional 300,000t of V₂O₅ (equivalent to ~170,000t of vanadium metal) over the next 10 to 15 years – this is expected to exacerbate the current supply deficits, and thus should increase prices; in addition new Chinese rebar regulations will come into effect in November, which again will drive demand.

Market in deficit, prices up: The vanadium market is currently in deficit, with stockpiles decreasing since 2010; this has partly been on the back of rationalisation in the Chinese steelmaking industry, and environmental issues closing a number of operations; this is not expected to change in the short term, thus opening up the potential for new players. This has also led to recent +200% increases in vanadium prices, with V₂O₅ moving from a low of under US\$10/kg in early 2016 to current prices of over US\$30/kg.

The next battery material to move: Having seen over recent years market developments for graphite, lithium and cobalt, will vanadium be the next to move?

The development precedent is set: Although, due to prices, the sector has been embattled over recent times, Largo's successful development of the Maracas Menchen Mine in Brazil, which commenced production in 2015 and is now operating at higher than the 9,200tpa V₂O₅ nameplate capacity demonstrates that the right projects can get off the ground - Menchen is hosted in a layered gabbroic intrusion similar to that at Gabanintha, with both deposits having similar vanadium grades.

World class vanadium deposit: With Gabanintha, Technology Metals Australia has a world class project and one of the highest grade undeveloped vanadium deposits globally; work to date has confirmed the potential for excellent metallurgical characteristics, a key factor in the development of this style of deposit.

Experienced personnel: Company personnel and associated groups have considerable experience in the junior resources sector, as well as shareholdings in the Company.

Active work programmes: The Company has made considerable progress to date, meeting deadlines, and has active work programmes related to the PFS going forward, which should result in steady news flow.

Leveraged to project progress: With an undiluted enterprise value of ~ A\$14 million and at a multiple below that of peers, the Company could be considered undervalued and is well leveraged to success in advancing Gabanintha and improving vanadium markets, as well as to any other opportunities that may be taken advantage of.

SWOT ANALYSIS

Strengths

- ◆ **World class, high grade vanadium deposit:** Gabanintha is a quality project, and the PFS should demonstrate attractive economics with the recent improvements in vanadium prices.
- ◆ **Simple geology:** The style of mineralisation is characterised by reasonably simple geology and continuous high grade mineralisation.
- ◆ **Shallow oxidation:** The northern part of the resource has only a shallow (5m to 10m) depth to the base of complete oxidation; this is important as it reduces the amount of time and cost of pre-stripping on any start up of operations to get to the readily treatable transition and fresh mineralisation.
- ◆ **Positive metallurgy:** Work to date indicates that the project will have good metallurgical characteristics.
- ◆ **Mining friendly jurisdiction:** Gabanintha is located in Western Australia, a mining-friendly jurisdiction which in 2017 ranked 5th globally and 1st in Australia in the Fraser Institute Survey of Mining Companies.
- ◆ **Cashed up:** Having just raised A\$3 million, the Company has sufficient cash to fund activities for the foreseeable future.
- ◆ **Experienced people with shareholdings:** Company personnel have significant experience in the resources game, as well as shareholdings in the Company which align their interests with those of other holders.

Weaknesses

- ◆ **Investor perception:** The vanadium sector is not one that has excited investors over recent years, however with rising prices, the forecast growth in battery demand and the recent excitement in the other battery material sectors appears to be now changing perceptions however.

Opportunities

- ◆ **Growing vanadium demand:** This is largely tied into the forecast growth in the storage and rebar markets, and with Gabanintha, the Company has a project that is well placed to take advantage of improving markets.
- ◆ **Gabanintha development options:** There is, should the Company wish, the potential for different development options, including a relatively low capex titano-magnetite concentrate-only start up to generate cash flow to help fund installation of a roaster to produce V₂O₅ flake, and the potential to value add by installing a ferro-vanadium plant.
- ◆ **Gabanintha co-products, alternative metallurgical process routes:** There could be the opportunity to extract high quality titanium and iron products through additional processing of the Gabanintha mineralisation – TNG Limited (ASX: TNG) is planning such an operation at Mt Peake in the Northern Territory using the licenced TIVAN process, however such projects will require significant additional capital than that required for a vanadium only operation. In addition Australian Vanadium (ASX: AVL), whose Gabanintha Project is contiguous to that of Technology Metals Australia has had success in leaching oxide mineralisation using Neometals' (ASX: NMT) proprietary process.

Threats

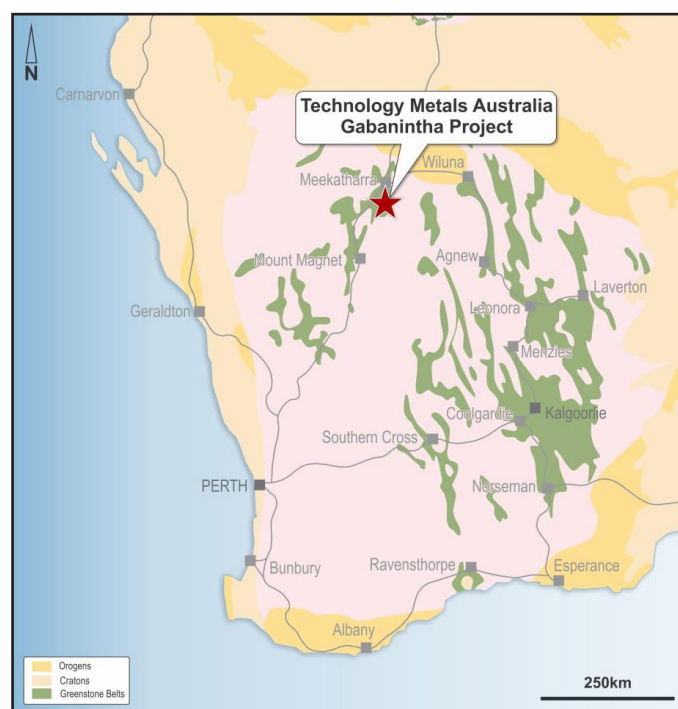
- ◆ **Markets:** Although junior resources markets are strong at the moment, they can turn on a dime; junior resource stocks are very susceptible to falls in the overall stock markets, which will affect the capacity to raise capital should the markets turn.
- ◆ **Vanadium Prices:** Vanadium prices have seen a resurgence lately, interpreted as largely being on restriction on exports out of China; however, the metal has shown in the past that it can move without logic; a potential game changer however is the forecast growth in VRFBs, which require a consistent supply of high quality flake product for the electrolyte, something which is not readily sourced from the slag producers.
- ◆ **Vanadium and battery demand not being as forecast:** This goes without saying in that it will affect demand and prices.

OVERVIEW

STRATEGY AND PROJECT OVERVIEW

- ◆ The Company's activities are concentrated on the Gabanintha Vanadium Project, located some 40km south-east of Meekatharra in Western Australia (Figure 1).
- ◆ Technology Metals Australia listed in late 2016 on the back of Gabanintha, which was held by KOP Ventures Pty Ltd ("KOP"), an unlisted Company, and which was subsequently acquired by TMT as part of the IPO.
- ◆ Gabanintha, one of the world's highest grade vanadium deposits is contiguous with and located over the same layered gabbroic intrusive that hosts Australian Vanadium's Gabanintha Vanadium Project.
- ◆ The strategy is to eventually develop the Project - since listing in late 2016 Technology Metals Australia has completed extensive drilling, with the results being used in the 119.9Mt MRE for the two mineralised blocks, north and south.
- ◆ Samples from the drilling have also been used in ongoing metallurgical testwork, with the results of this (along with the recently upgraded MRE) to be used in a recently commenced PFS that is expected to be completed by the middle of H1, CY2018.
- ◆ Along with work on Gabanintha, the Company will assess other opportunities in technology metals when and if they arise.

Figure 1: Gabanintha location plan



Source: Technology Metals Australia

FINANCIAL POSITION

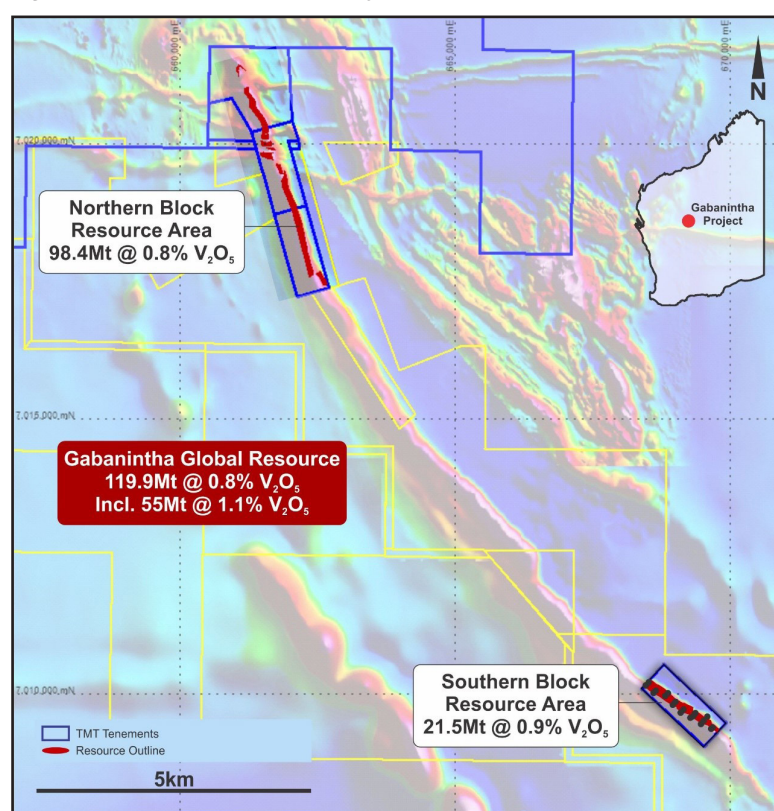
- ◆ The Company listed in December 2016, and raised A\$4 million before costs through the issue of 20 million shares at A\$0.20 as part of the listing.
- ◆ As of December 31, 2017 the Company had A\$1.012 million in cash and no debt.
- ◆ TMT has subsequently (in March 2018) raised A\$3 million before costs through the placement of 10 million shares at A\$0.30/share; each share included a 1:3, A\$0.40, two year free attaching option.
- ◆ It is expected that total options to be issued will be 10 million (subject to shareholder approval), with these including the free attaching options and a number issued to supporting brokers and key consultants and advisors.
- ◆ Since listing A\$2.019 million has been spent on exploration and evaluation and A\$1.038 on administration and staff.
- ◆ There are currently 14.85 million A\$0.25 in the money options (expiring on December 2, 2019, with 13.70 million being escrowed until December 21, 2018); these have the potential to bring in A\$3.71 million.

GABANINTHA VANADIUM PROJECT

Tenure and Permitting

- ◆ The Project is situated within a 100% held package that includes one granted exploration licence ("EL") and four granted prospecting licences ("PL"); in addition there is one EL application ("ELA").
- ◆ Four granted tenements and the application form a contiguous block in the north of the Project, with one, P51/2942 termed the "Southern Tenement", being enclosed within a tenement held by Australian Vanadium towards the southern end of the intrusive (Figure 2).
- ◆ The granted tenements, all held by KOP Ventures Pty Ltd ("KOP"), a wholly owned subsidiary of Technology Metals Australia, cover an area of ~6.1km², and are all in good standing; the application covers 41 sub-blocks (~125km²).
- ◆ The Project is located approximately 40km southeast, along the gazetted all-weather Meekatharra-Sandstone Road, from the mining and pastoral town of Meekatharra; the nearest port is Geraldton, some 600km away.

Figure 2: Gabanintha Vanadium Project tenements and resources



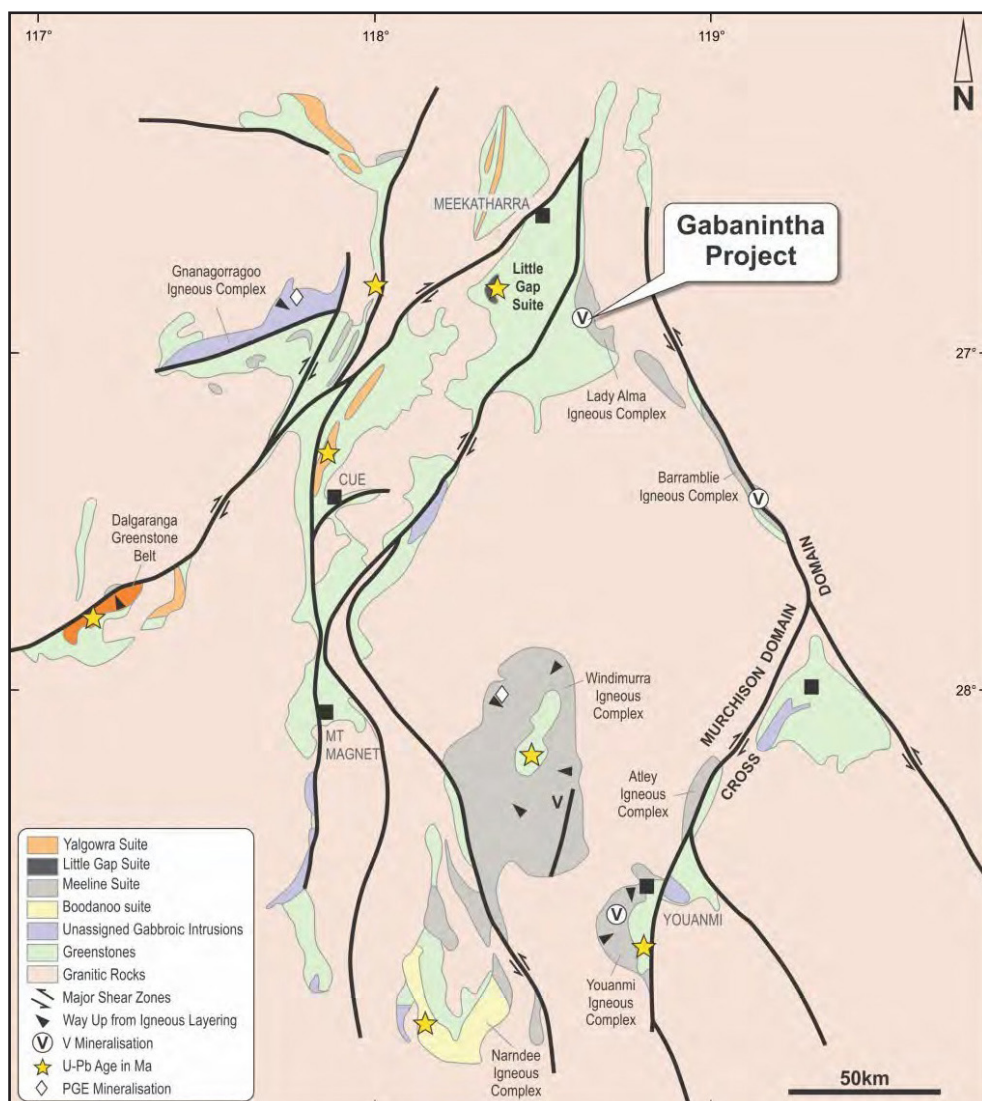
Source: Technology Metals Australia

Geology and Mineralisation

- ◆ The Project is located over units of the Meekatharra-Wydege Greenstone Belt within the Archaean Yilgarn Craton, a key mineralised terrane in Western Australia.
- ◆ More specifically, it is located over the Archaean Gabanintha Gabbro (part of the Lady Anna Igneous Complex), one of a number of mafic/ultramafic intrusive complexes in the region as shown in the Figure 3; other significant igneous complexes include Windimurra, site of the now closed Windimurra Vanadium Mine and Barrambie, the site of Neometals' Barrambie Titanium Project.
- ◆ The Gabanintha Gabbro, which has a strike length of some 19km (including ~6km within TMT's tenements) and which has a consistent 45°-55° south-westerly dip, has been dated at around 2.81Ga.
- ◆ Gabanintha is a layered intrusive, with a total true thickness of up to 180m, with the basal, high grade mineralisation being associated with a titano-magnetite cumulate phase.

- ◆ The gabbro intrudes units of the Yaloginda Formation, the basal unit within the Norie Group, which is within the Northern Murchison Domain of the Murchison Supergroup.
- ◆ The gabbro has been cut by a number of generally SW-NE striking faults, however there has only been minor displacement along these.

Figure 3: Gabanintha regional geology

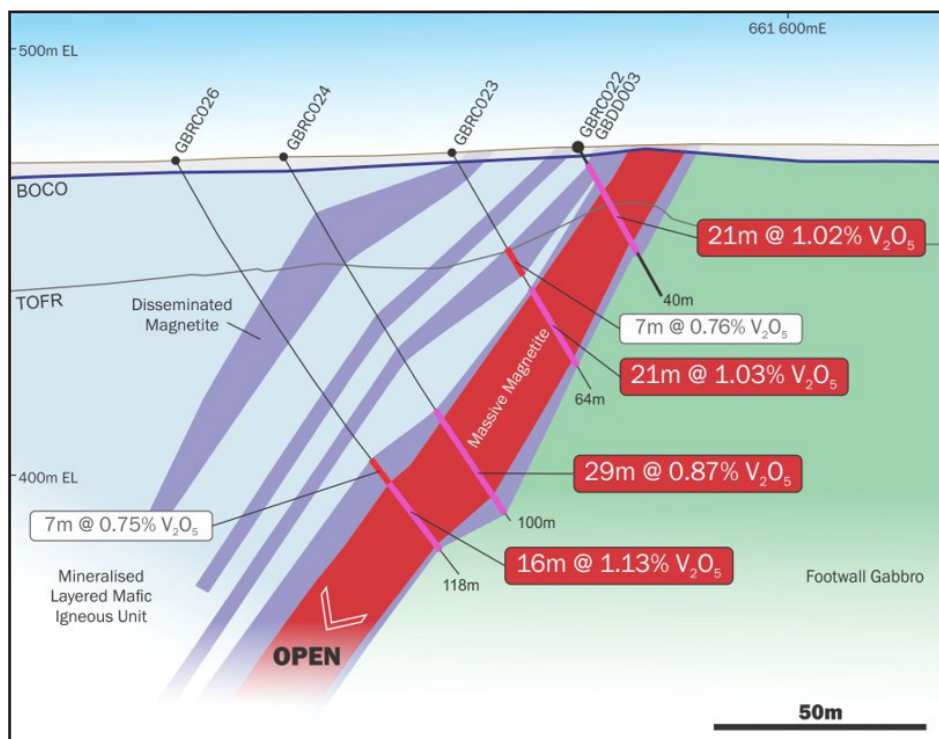


Source: Technology Metals Australia

- ◆ This basal unit has a true thickness of between 10-30m, with work by both Technology Metals Australia and Australian Vanadium highlighting the consistent widths of this unit along the entire drilled strike length of the intrusion.
- ◆ This basal unit is comprised almost entirely of vanadiferous titanomagnetite, with accessory ilmenite and silicate minerals, including anorthosite.
- ◆ The Yaloginda Formation is comprised largely of felsic volcanoclastics and banded iron formation ("BIF"), with some sedimentary schists.
- ◆ Upper units within the intrusive are dominated by gabbro-norites and anorthosites - gabbroic rocks which are largely composed of plagioclase and pyroxene; these units also contain appreciable disseminated vanadium bearing titanomagnetite in a series of sub-parallel zones, albeit of lower overall grade than the basal cumulate, however potentially economically recoverable (discussed later).
- ◆ The project area has been strongly weathered to depths of between 10m and 50m; however the vanadium is not removed by weathering, although the magnetic properties are lost due to the weathering to more oxidised species such as martite, a pseudomorph of haematite formed by the weathering of magnetite.
- ◆ Figure 4 shows a typical cross section of the mineralisation, highlighting grades and thicknesses in the massive basal zone, and mineralised lenses in the upper disseminated zones - this is from the northern area of the mineralisation.

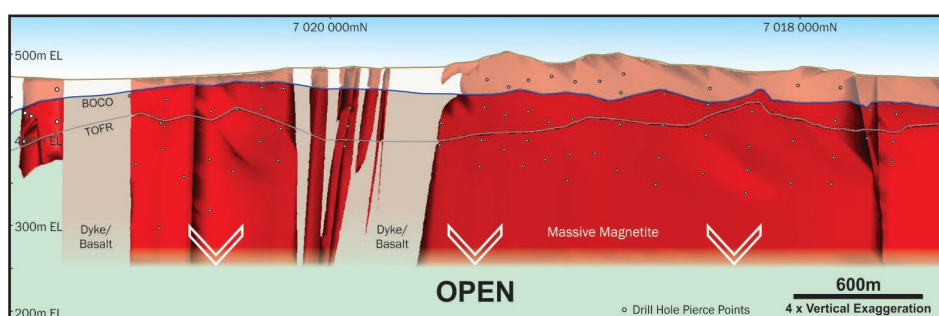
- ◆ One aspect of the deposit is that the morphology is ideally suited to open pit mining; the immediate footwall to the mineralisation would possibly approximate the final pit wall, and there is the possibility to treat the overlying disseminated mineralisation, which, as it has to be dug up to access the massive mineralisation, should help the economics of any future development.
- ◆ The potential for a relatively short lead time to production due to reduced pre-stripping requirements is shown by the shallow oxidation (5m to 10m) in the north of the deposit (Figures 4 and 5); drilling on the southern block has highlighted a similar situation.

Figure 4: Cross section 0400N, showing typical intersections and very shallow oxidation



Source: Technology Metals Australia

Figure 5: Northern long section (looking NE), highlighting shallow oxidation in the north



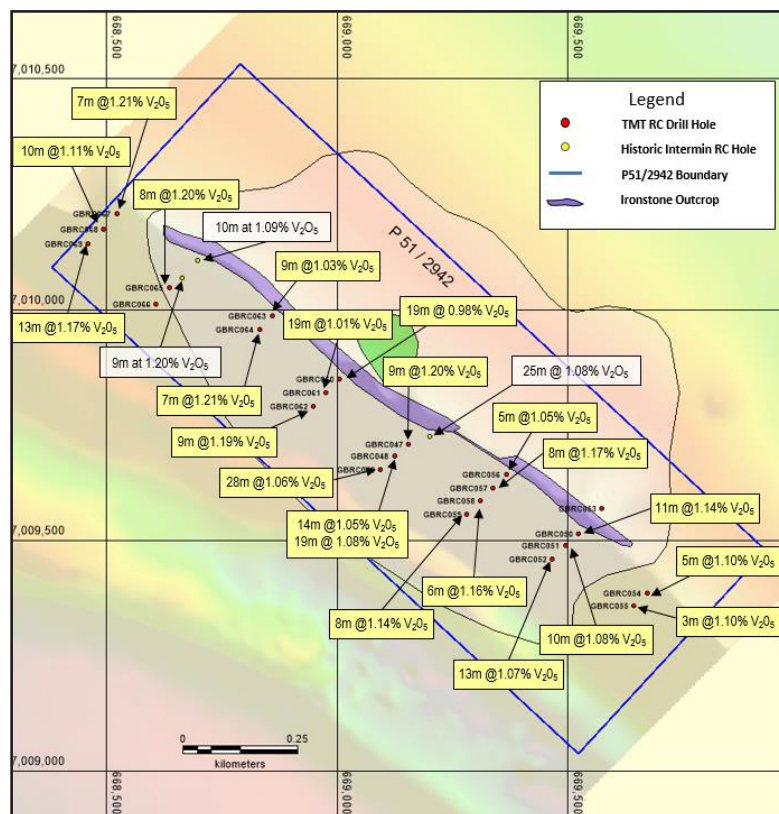
Source: Technology Metals Australia

Drilling and Resources

- ◆ Since listing, TMT has carried out significant drilling at Gabanintha, which has resulted in an initial MRE - drill targeting was partially based on the results of a detailed airborne magnetics survey completed by the Company - the basal massive mineralisation has a strong, distinctive magnetic signature.
- ◆ The drilling has included both diamond and reverse circulation ("RC"), generally drilled at 40m hole spacings on lines spaced at either 200m or 100m apart - this has tested 1,500m of strike within the southern tenement and 5km of strike in the north down to depths of ~200m below surface.
- ◆ The drilling has included 108 RC holes for 10,619m (including 23 holes for 2,233m on the southern block) and 13 diamond core holes for 1,235m, all on the northern block, with the work on the northern block including the infill drilling to 100m line spacing; this has allowed the upgrading of a proportion of the Inferred Resources to Indicated.

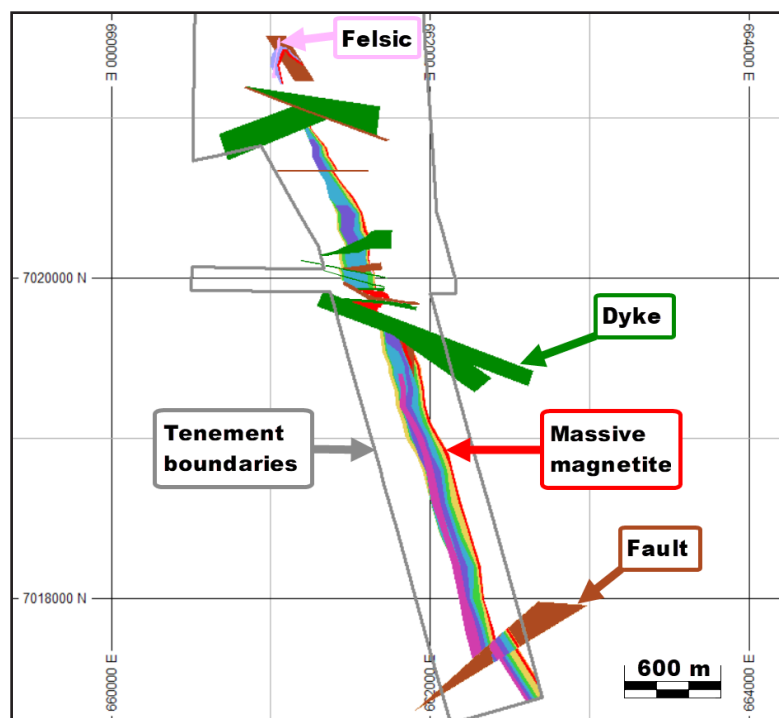
- ◆ This work has led to consistent results, particularly in the basal massive mineralisation; examples of results from the southern block are shown in Figure 6 and an example from the northern block in Figure 4; the resource model for the northern block is shown in Figure 7.
- ◆ Given the relative orientations of the drillholes and dip of the mineralisation, all intercepts are close to true width.
- ◆ This has also intersected the full thickness of the intrusion, allowing for full geological interpretations.

Figure 6: Southern block drill plan and results



Source: Technology Metals Australia

Figure 7: Northern block resource plan



Source: Technology Metals Australia

- ◆ The current JORC-2012 compliant MRE of 119.9Mt @ 0.8% V₂O₅ is presented in Table 1 - this includes high grade, massive magnetite mineralisation of 55.5Mt @ 1.10% V₂O₅.
- ◆ 18% of the total, including 26% of the massive mineralisation is in the Indicated category, all included in the northern block.
- ◆ Additional drilling is planned on the southern block to upgrade sections of the current Indicated Resource.

Table 1: Gabanintha JORC-2012 Compliant MRE

Gabanintha JORC-2012 Compliant MRE								
Mineralised Zone	Classification	Million Tonnes	V ₂ O ₅ %	Fe%	Al ₂ O ₃ %	SiO ₂ %	TiO ₂ %	LOI %
Northern Zone								
Massive Magnetite	Indicated	14.5	1.1	49.2	5.1	5.8	12.8	-0.2
	Inferred	30.1	1.1	48.0	5.7	6.7	12.7	0.2
	Ind + Inf	44.6	1.1	48.4	5.5	6.4	12.4	0.1
Disseminated	Indicated	7.1	0.6	29.9	12.6	24.4	7.8	2.9
	Inferred	46.6	0.5	26.5	14.1	27.4	7.0	4.4
	Ind + Inf	53.7	0.5	27.0	13.9	27.0	7.1	4.2
Total Northern Zone	Indicated	21.6	0.9	42.8	7.6	12.0	11.2	0.9
	Inferred	76.8	0.8	34.9	10.8	19.3	9.2	2.8
	Ind + Inf	98.4	0.8	36.7	10.1	17.7	9.7	2.4
Southern Zone								
Massive magnetite	Inferred	10.4	1.1	49.1	4.9	5.9	12.6	-0.4
Disseminated	Inferred	11.1	0.6	30.2	11.9	23.4	7.7	2.4
Total Southern Zone	Inferred	21.5	0.9	39.3	8.5	14.9	10.1	1
Combined Zones								
Massive Magnetite	Indicated	14.5	1.1	49.2	5.1	5.8	12.8	-0.2
	Inferred	40.5	1.1	48.3	5.5	6.5	12.7	0.2
	Ind + Inf	55.0	1.1	48.5	5.4	6.3	12.7	0.1
Disseminated Magnetite	Indicated	7.1	0.6	29.9	12.6	24.4	7.8	2.9
	Inferred	57.7	0.6	27.2	13.7	26.7	7.2	4.0
	Ind + Inf	64.9	0.6	27.5	13.5	26.4	7.2	3.9
Total Resources	Ind + Inf	119.9	0.8	37.1	9.8	17.2	9.7	2.1

Source: Technology Metals Australia

- ◆ The resources are based on a nominal 0.9% V₂O₅ bottom cut for the basal zone and 0.4% for the disseminated zones; bulk dry densities are shown in Table 2.

Table 2: Gabanintha density vales - t/m³

Gabanintha density values - t/m ³			
Weathering state	Waste	Disseminated/ banded	Massive
Oxide	1.8	2.0	3.0
Transition	2.7	3.2	3.8
Fresh	3.2	3.4	4.3

Source: Technology Metals Australia

Metallurgy

- ◆ A key factor to the success of any future operation is the metallurgical performance, particularly of the basal massive zone - the aim here is to achieve a high recovery to a high grade vanadiferous magnetite concentrate, which will lower downstream processing costs, and optimise the value of the concentrate if there is the intention to sell concentrate.
- ◆ The key concentration method, given the mineralogy is magnetic separation, with the effectiveness affected by the weathering state of the mineralisation.
- ◆ Another consideration is the performance of the more disseminated mineralisation - although not the primary target, given that this material will need to be mined to access the basal massive mineralisation being able to achieve some economic benefit from this

will help project economics by increasing the revenue and decreasing the effective strip ratio.

- ◆ Initial metallurgical work concentrated largely on the massive mineralisation, however some disseminated material was included in the composites - this included Davis Tube ("DTR") testwork at a 45µm grind, and DTW (similar, but using specified size fractions) at 75µm, 106µm and 210µm grind sizes.
- ◆ The results of this were positive, and was followed up by detailed low intensity magnetic separation ("LIMS"; 1,200 gauss) work on fresh, transitional and oxide material for both the massive and transitional mineralisation; this produced excellent results, as shown in Tables 3 (valuable metals) and 4 (gangue minerals).
- ◆ The head grade of the three massive ore samples ranged from 1.22% to 1.27% V₂O₅, with that for the disseminated mineralisation ranging from 0.52% to 0.60% V₂O₅.
- ◆ Key outcomes of this work included:
 - High vanadium recoveries of up to 97.8%, with mass recoveries of up to 85.6%,
 - Concentrate vanadium oxide grades of over 1.3% for the transitional and fresh massive mineralisation; this also returned concentrate grades of 1.27% V₂O₅ for the fresh disseminated mineralisation albeit at a lower mass pull,
 - Concentrate grade and recovery is not sensitive to grind size, with the resultant potential operating efficiencies, and,
 - High rejection of the deleterious minerals silica and alumina highlights the potential to produce a high quality concentrate.
- ◆ This highlights potential operational benefits, in that being able to treat hanging wall disseminated mineralisation returns some value from what otherwise may have been considered as waste, and the positive results from transitional material will mean less pre-strip and time to production.
- ◆ Comminution test work (to a finer 80µm grind than the mid-point 106µm grind as used in the concentration test work) has resulted in bond work indices ("BWI") of 19.9kWh/t for the fresh massive material and 20.4kWh/t for the disseminated material; these are typical for this style of mineralisation.
- ◆ Ongoing activities will include assessing the variability throughout the northern block resource, detailed beneficiation test work and downstream processing (salt roast/leach) of the concentrates from diamond drill core.

Table 3: Gabanintha metallurgical test work results - valuable metals

Gabanintha metallurgical test work results - valuable metals									
Composite	Screen Size	Mass Pull %	Fe		TiO ₂		V		
			Grade %	Rec %	Grade %	Rec %	V%	V ₂ O ₅ %	Rec %
Massive Fresh	P80 250	85.4	57.4	94.5	13.80	87.9	0.73	1.30	96.8
	P80 106	85.6	57.9	95.4	13.70	87.2	0.73	1.30	97.8
	P80 45	85.9	58.8	95.5	13.60	86.8	0.74	1.32	97.9
Massive Transition	P80 250	68.4	55.1	72.6	14.40	69.1	0.74	1.32	75.8
	P80 106	68.8	55.6	73.5	14.30	69.1	0.75	1.34	77.0
	P80 45	64.2	56.0	69.2	14.10	64.3	0.76	1.36	73.1
Massive Oxide	P80 250	36.9	54.1	40.8	14.5	37.0	0.75	1.14	40.8
	P80 106	25.2	54.7	28.2	14.4	25.2	0.75	1.14	28.0
	P80 45	7.9	55.5	9.0	13.8	7.5	0.74	1.13	8.5
Disseminated Fresh	P80 250	34.8	53.4	66.2	14.30	66.9	0.68	1.21	76.4
	P80 106	33.0	55.5	64.9	14.30	63.7	0.71	1.27	75.9
	P80 45	32.0	56.9	64.1	14.00	60.4	0.72	1.29	75.1
Disseminated Transition	P80 250	19.1	49.5	33.1	14.80	38.8	0.59	1.05	39.3
	P80 106	17.3	52.6	32.7	15.00	37.4	0.63	1.12	39.4
	P80 45	16.0	54.5	31.3	14.40	33.3	0.64	1.14	36.9
Disseminated Oxide	P80 250	2.3	53.5	5.3	17.20	5.0	0.68	1.21	5.11
	P80 106	1.9	53.1	4.5	17.00	4.3	0.67	1.20	4.29
	P80 45	1.0	54.0	2.4	16.30	2.1	0.66	1.18	2.21

Source: Technology Metals Australia

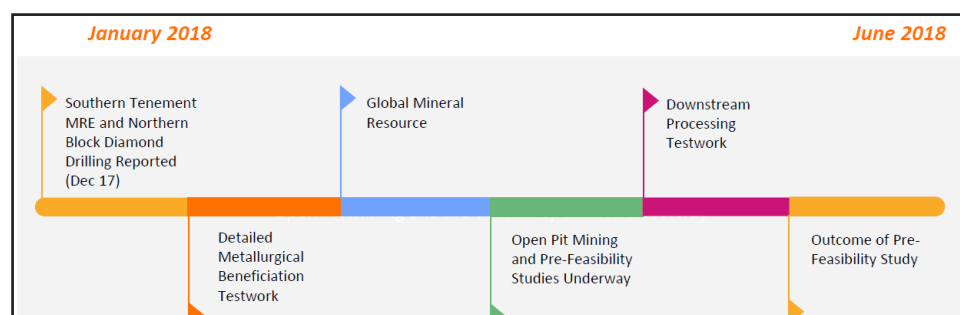
Table 4: Gabanintha metallurgical test work results - gangue materials

Gabanintha metallurgical test work results - gangue minerals							
Composite	Screen Size	Mass Pull %	SiO ₂		Al ₂ O ₃		LOI
			Grade %	Rec %	Grade %	Rec %	Grade %
Massive Fresh	P80 250	85.4	0.55	13.6	2.75	49.2	-2.73
	P80 106	85.6	0.46	11.5	2.55	45.9	-3.00
	P80 45	85.9	0.32	8.8	2.36	44.2	-3.21
Massive Transition	P80 250	68.4	0.82	21.7	2.73	46.4	0.42
	P80 106	68.8	0.65	17.8	2.50	43.1	0.29
	P80 45	64.2	0.47	11.9	2.30	36.3	-0.10
Massive Oxide	P80 250	36.9	1.3	10.8	2.9	21.1	0.9
	P80 106	25.2	1.0	5.7	2.7	13.2	0.6
	P80 45	7.9	0.7	1.3	2.5	4.0	-0.6
Disseminated Fresh	P80 250	34.8	3.95	5.3	3.47	9.1	-2.13
	P80 106	33.0	2.62	3.3	2.80	7.0	-2.70
	P80 45	32.0	1.96	2.5	2.45	5.9	-3.31
Disseminated Transition	P80 250	19.1	6.82	5.2	3.31	5.6	-1.19
	P80 106	17.3	4.49	3.0	2.51	3.7	-1.82
	P80 45	16.0	3.54	2.2	2.11	2.9	-2.55
Disseminated Oxide	P80 250	2.3	2.07	0.2	1.73	0.2	0.33
	P80 106	1.9	2.78	0.2	1.92	0.2	0.10
	P80 45	1.0	2.22	0.1	2.10	0.1	-1.05

Source: Technology Metals Australia

CURRENT AND UPCOMING ACTIVITIES

- ◆ Further metallurgical test work is now underway, with this to be carried out on the diamond core component of the northern block of mineralisation; this will include:
 - Detailed magnetic separation work on both disseminated and massive mineralisation across oxide, transitional and fresh domains, and,
 - Downstream processing test work, with a focus on the “traditional” salt roast/leach processing of concentrate,
- ◆ Other activities, leading to the completion of the PFS in June will include open-pit mining studies and pit optimisations - a summary of proposed activities is shown in Figure 8.

Figure 8: Upcoming activities

Source: Technology Metals Australia

PEER GROUP ANALYSIS

- ◆ Table 5 presents a list of who we consider to be peers of Technology Metals Australia, which includes developers and producers - this is sorted by resource grade.
- ◆ These companies are included in the table and Figure 9 below, which also includes the enterprise value in Australian Dollars, which has been converted in the case of non-ASX listed companies.

- ◆ Our view that the closest producing analogy to Technology Metals Australia is Largo Resources (TSX-V: LGO), which commenced production in 2015 from its Maracas Menchen Mine in Brazil, and is treating ~ 1mtpa of ore per annum to produce, depending on head grade up to 9,200tpa of V₂O₅ flake (with this currently being exceeded) – this is of a similar quantum to what may be a reasonable size operation at Gabanintha.
- ◆ Largo, with an EV of ~A\$800 million highlights the upside potential should a project be taken through to production.
- ◆ We have quoted the global resource for Largo for comparison purposes below - current reserves are 18Mt @ 1.18% V₂O₅.
- ◆ In Australia the obvious peer is Australian Vanadium (which enjoys an EV which is a multiple of that for Technology Metals Australia as shown in Table 5), who hold the along strike portion of the Gabanintha resource - AVL is more advanced, having undertaken a significant amount of metallurgy and also completed conceptual engineering studies; this highlights the upside potential for TMT through progressing Gabanintha.
- ◆ AVL has seen significant recent price movements in reaction to positive leach test work using a process developed Neometals, highlighting the renewal of interest in the vanadium sector.
- ◆ Neometals Limited is currently looking to produce Ti, V and Fe products from its Barrambie Project, which is located within 50km of Gabanintha, and hosted in a similar style of intrusion, however their main focus is on the producing Mt. Marion lithium mine.
- ◆ Also in Australia TNG Limited is looking to develop their Mt. Peake V-Ti-Fe Project in the Northern Territory; the plans are to treat this using the proprietary TIVAN® process, to produce high quality vanadium, titanium and iron oxide products. TNG is currently talking to potential finance and development partners having recently completed a positive BFS.

Table 5: Technology Metals Australia peers

Technology Metals Australia peers						
Company and Project	Tonnage	Grade V ₂ O ₅	Contained V ₂ O ₅ - Mt	Enterprise Value (UD, A\$)	Stage	Notes
Largo - Maracas - Resources	51 mt	1.01%	0.51 mt	\$798.06	Production	December 2017 - Above budget 903t V2O5 produced from the Menchen Mine at the Maracas Project. Initial estimated capex was US\$250m for a planned production of 9,200t V2O5
Technology Metals Australia - Gabanintha - Global	120 mt	0.80%	0.96 mt	\$14.51	PFS	
Australian Vanadium - Gabanintha - Global	180 mt	0.75%	1.35 mt	\$54.42	Engineering Concept Study completed	Has other projects, and is in the VRFB supply, installation and maintenance market
Bushveld Minerals - Makopane - Global	285 mt	0.68%	1.94 mt	\$135.93	PFS Completed	Interests in other projects
Neometals - Barrambie	47 mt	0.63%	0.30 mt	\$153.17	PFS	Primary operations are at the Mt Marion lithium project, and Barrambie is primarily a titanium project
Atlantic - Windimurra	243 mt	0.48%	1.16 mt	N/A	C & M	Private company
Audalia - Medcalf	32 mt	0.45%	0.14 mt	\$9.24	PFS completed	
King River Copper - Global	4,711 mt	0.30%	14.13 mt	\$79.04	Resource	Activities focussed on other assets
TNG - Mt. Peake Resources	160 mt	0.28%	0.45 mt	\$115.85	DFS Completed	Ti and Fe co-products in proposed TIVAN hydrometallurgical plant

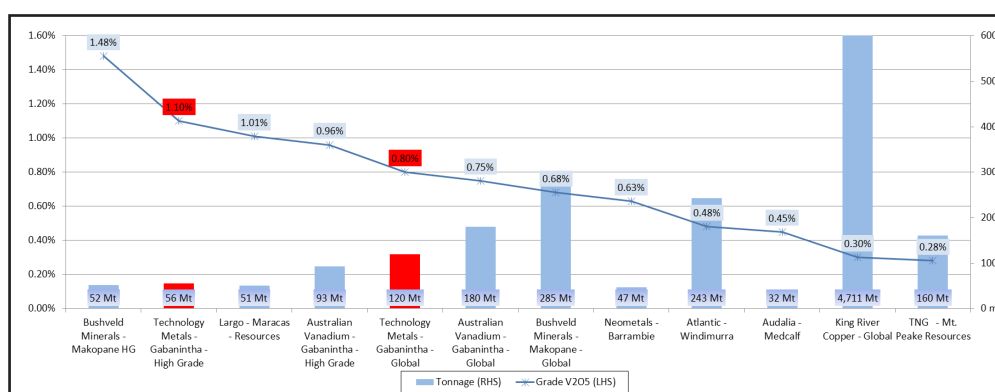
Source: IRESS, IIR analysis

- ◆ Presenting the V₂O₅ grade only for TNG and Neometals is misleading since they are both looking at producing TiO₂, and in the case of TNG, iron products - we cover TNG and our modelling indicates that vanadium products make up some 20% of the projected

revenue from Mt Peake - this would suggest a V_2O_5 equivalent grade in the order of 1.4% for the deposit.

- ◆ What Table 5 and Figure 9 highlight is the relatively high grade of Technology Metals Australia's resources, (particularly the high grade massive magnetite), as well as the low enterprise value - this points to the Company being undervalued and gives significant potential for value uplift and we would expect to see this rise as activities progress and the Project is de-risked.
- ◆ Another factor that needs to be considered is the concentrate grade, with this affecting the economics of the downstream processing (whereas the ore grade determines the concentration economics) - TMT's concentrate grade from work to date of over 1.30% V_2O_5 (from relatively high grade mineralisation) is broadly typical of most of the Australian deposits, however Largo's Maracas operation has a significantly higher grade of ~3.4% V_2O_5 from a reserve grade of 1.18% V_2O_5 . King River Copper has achieved a concentrate grade of 2.15% V_2O_5 - however this was from a composite sample of mineralisation with a grade of 0.37% V_2O_5 .

Figure 9: Technology Metals Australia Peers



Source: IRESS, IIR analysis

CAPITAL STRUCTURE

- ◆ Technology Metals Australia will have 55.25 million ordinary shares on issue following completion of the recently announced placement (including 22.5 million under escrow until December 21, 2018).
- ◆ Unlisted options include 14.85 million, A\$0.25/ December 31, 2019, 3 million A\$0.35/ January 12, 2021 options and 10 million A\$0.40/April 2020 options (with all of the latter subject to shareholder approval) - 13.7 million of the December 2019 options are escrowed until December 21, 2018.
- ◆ The Board and Management currently hold ~8.2% on a fully diluted basis.
- ◆ The Company has over 350 shareholders, with the top 20 holding 54.6% prior to the March 9, 2016 vesting of Performance Shares and the March 13, 2018 placement (at the time of writing the post placement top 20 was not available).
- ◆ The largest shareholder prior to the issues above was Twentieth Century Motor Company, with 26.3% of TMT, with the second being Station Nominees at 8.89% - both of these holdings are escrowed to December 21, 2018.

RISKS

- ◆ **Exploration and Resource** – Given the style of mineralisation and the results of work completed to date this is not a risk for Technology Metals Australia - the current MRE has the potential to support a long term operation.
- ◆ **Metallurgy** – This is one of the key technical risks, however the results of the concentration test work have proved very positive, somewhat mitigating this risk; although downstream test work is yet to start, results from AVL have been positive for this phase of work.
- ◆ **Development Funding:** Although down the track, the ability to raise project development funding will depend upon markets at that time, as well as the market capitalisation of the Company.

- ◆ **Metal Prices and Exchange Rates** – These are key for the success (and a decision to go ahead) of any potential resource project, and a factor in which the operators have no control. After seeing a nadir in early 2016 and relatively flat prices following, the last 12 months, and particularly the last 6 months have seen significant rises in vanadium prices, pointing towards a possible longer term recovery in the metal.
- ◆ **Permitting and Sovereign Risk** – Given that Western Australia is a relatively friendly mining jurisdiction, we do not see this as a key risk. This is also mitigated by Gabanintha being located in a historical mining district.

BOARD AND MANAGEMENT

- ◆ **Mr Michael Fry – Non-Executive Chairman:** Michael Fry holds a Bachelor of Commerce degree from the University of Western Australia, is a Fellow of the Financial Services Institute of Australasia, and is a past member of the Australian Stock Exchange. Mr Fry has extensive corporate and commercial experience, financial and capital market knowledge and a background in corporate treasury management. Mr Fry is currently Non-Executive Chairman of ASX listed Brookside Energy Limited with a focus on oil and gas exploration and production onshore mid-continent region of USA, Non-Executive Chairman of Challenger Energy Limited that is focussing on oil and gas exploration opportunities in South Africa and Non-Executive Chairman of ASX listed Norwest Energy NL that has assets in Australia and the United Kingdom with an operational focus on the northern Perth Basin.
- ◆ **Mr Ian Prentice – Managing Director:** Mr Prentice has extensive global resource industry and equity capital markets experience, with a proven track record of high quality corporate management and technical excellence. His broad ranging 25 year-plus career extends from exploration and operational roles across a variety of commodities to the listing and management of ASX-listed resource companies. Mr Prentice has served as a Director for a number of ASX-listed resource companies, with activities ranging from exploration and project acquisition in Asia and Africa through to gold production in Australia. He has broad experience in identifying and reviewing resource projects for potential acquisition. Mr Prentice is a Member of the Australasian Institute of Mining and Metallurgy and holds a Bachelor of Science (Geology) from the University of Western Australia.
- ◆ **Mr Sonu Cheema – Non-Executive Director and Company Secretary:** Mr Cheema holds the position of Accountant and Company Secretary for Cicero Corporate and has over 10 years' experience working with public and private companies in Australia and abroad. Roles and responsibilities held by Mr Cheema include completion and preparation of management and ASX financial reports, investor relations, initial public offer, mergers and acquisitions, management of capital raising activities and auditor liaison. Currently Mr Cheema is Company Secretary for Corizon Limited (ASX: CIZ), Intiger Group Limited (ASX: IAM), Yojee Limited (ASX: YOJ) and the Company. Mr Cheema has completed a Bachelor of Commerce majoring in Accounting at Curtin University and is a CPA member. Having completed the CPA Program, the core competencies and key areas of focus by Mr Cheema include Financial Reporting, Taxation, Management Accounting and Ethics & Governance. Mr Cheema's core strengths include the ability to communicate and complete regulatory reporting requirements, assist company board and management personnel with implementing strong business structures and controls, sound governance and compliance with reporting requirements.

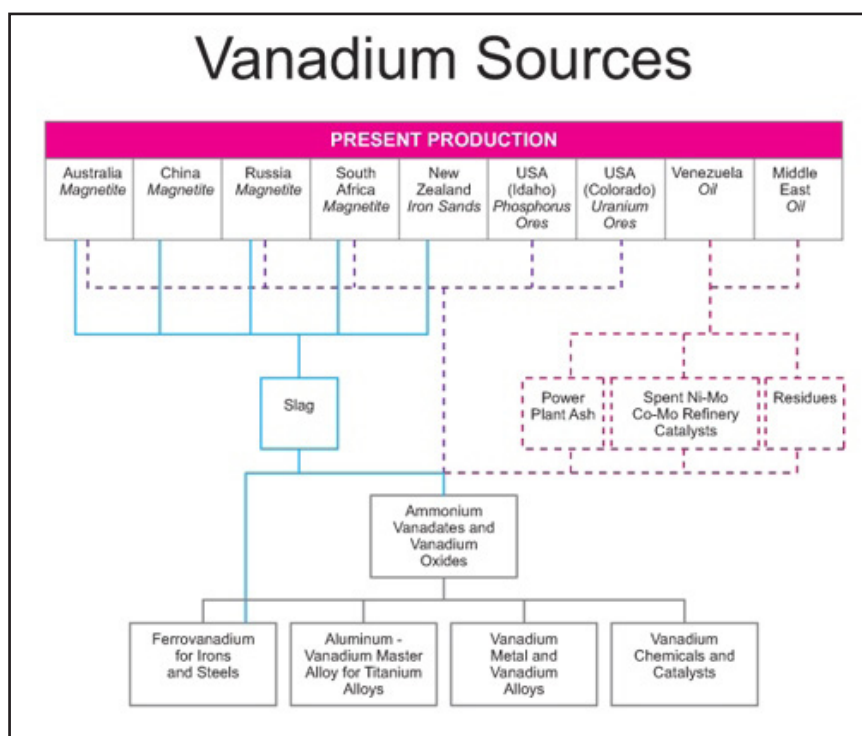
VANADIUM AND VRFBS

Introduction

- ◆ The main use of vanadium is as a steel additive in high-strength steel, which accounts for about 92% of the current global demand of ~100,000t of vanadium metal (equivalent to ~180,000t V₂O₅, with the oxide containing 56% V).
- ◆ Other uses include chemicals, catalysts and in batteries - vanadium is produced as two main products – FeV for steel-making and V₂O₅ for chemical and battery applications.

- ◆ Global production was reportedly ~73,000t in 2016, with the largest source being as a by-product from slag produced from the smelting of titaniferous magnetite ores for steelmaking (Figure 10) – it is estimated that this accounts for ~73% of total supply, with 17% being derived from mining as a primary product and the remainder from secondary sources, including oil residues and fly ash.
- ◆ Supply is concentrated, with over 90% of vanadium products produced in South Africa, China, Russia and Brazil.
- ◆ New developments include Largo Resources Maracas Project in Brazil, which is now in full production, and exceeding the planned output of 9,200t of V_2O_5 per year, with a planned FeV plant to be added at a later date.

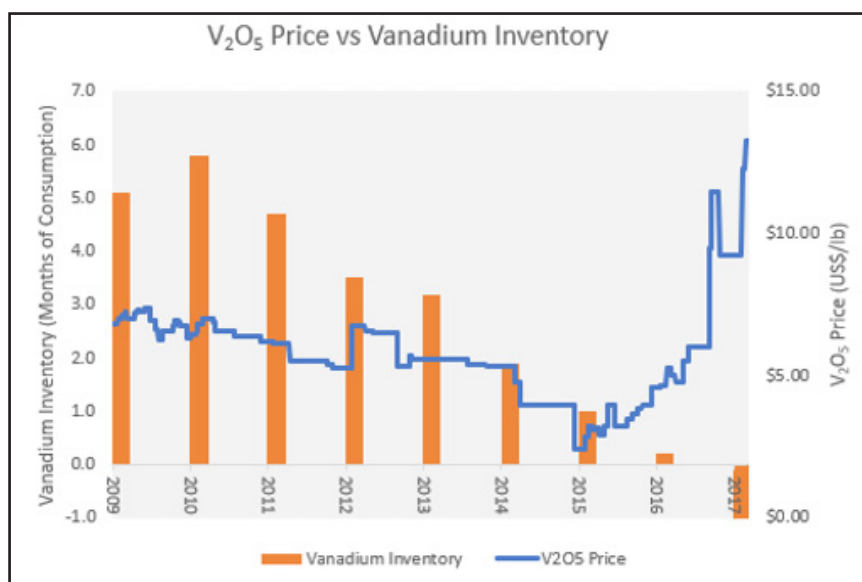
Figure 10: Vanadium sources



Source: Vanitec

- ◆ Demand has outstripped supply since 2010, with successive drawdowns on inventory; part of this has been due to industry rationalisation and environmental constraints in China, with this now resulting in the inventories being depleted and hence a recent increase in prices after falling for over 10 years (Figures 11 and 14)

Figure 11: Vanadium Inventory change



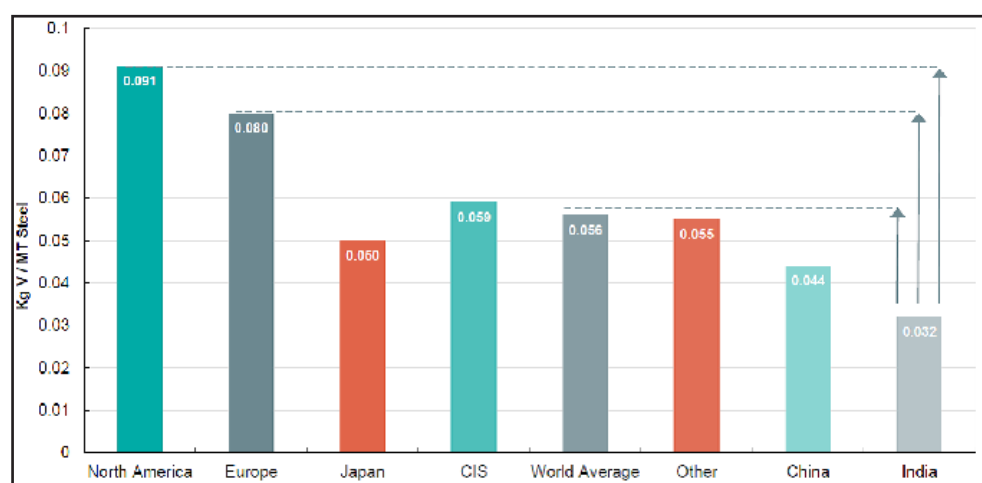
Source: Technology Metals Australia

Demand Drivers

Steelmaking

- ◆ The current key demand driver is as an additive in steel – demand for vanadium closely follows the production of steel. This includes two factors – firstly the natural organic growth in steel production and secondly increasing vanadium intensity in steel with the move to lighter weight and higher strength steels – the addition of just 0.2% vanadium to steel increases steel strength by up to 100% and reduces the weight of steel required in relevant applications by up to 30%.
- ◆ This second factor is particularly relevant in China, where there is increasing vanadium intensity in rebar due to changes in building standards (with new regulations set to become effective in November 2018), partly following on from the 2008 earthquake - there is still a fair way to go with this and thus significant potential growth in use in this application, however this has the potential to increase Chinese vanadium consumption by up to 50% (15,000tpa).
- ◆ Roskill estimate that, although steel production will only grow at 1% CAGR over coming years, the increasing intensity of vanadium in steel along with other end uses will result in a long term demand growth of 3.45% CAGR from ~100,000tpa V in 2015 to 131,000tpa contained V in 2025, with the forecast supply deficits now being seen.
- ◆ The graph below shows the relative vanadium intensities in rebar between various jurisdictions.

Figure 12: Vanadium steelmaking intensity



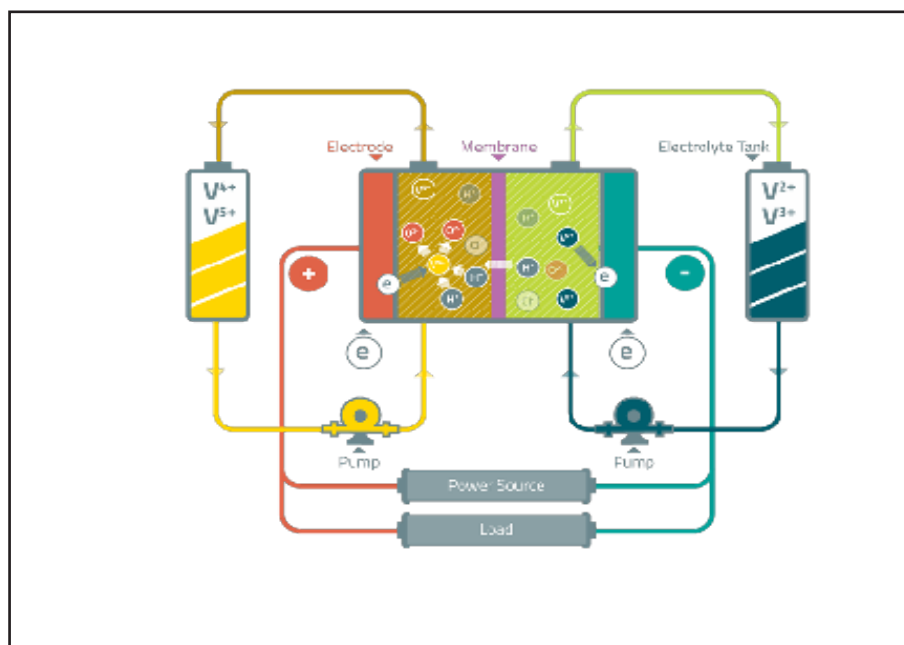
Source: Australian Vanadium

Energy Storage – VRFB's and Li-Ion Batteries

- ◆ The blue sky in demand, and the potentially disruptive technology is in grid scale battery usage - the key here will be the adoption of VRFB's that have the capacity for multi-megawatt scale storage - this makes them useful for grid scale applications, including grid balancing and storing energy from variable output sources, including wind turbines and solar cells.
- ◆ The batteries are inherently simple, relying on the changing redox state of vanadium to store and then supply power.
- ◆ Other attributes of these batteries include:
 - Scalability
 - Long lifespan – up to 20 years
 - Up to a 1 year charge retention
 - 100% discharge without damage, and,
 - Only one element – V in various oxidation states – in electrolyte.
- ◆ There are widely differing forecasts on the growth in VRFB's, however some commentators see the potential for VRFBs to provide up to 30% of the growing energy storage market, with some forecasting an additional demand of 300,000t of vanadium over coming years to meet this need.

- ◆ There are a number of active VRFB developments globally at the moment, reportedly with the largest being the development of a 200MW/800MWh battery in Dalian, China, which reportedly uses 6,950 tonnes of V_2O_5 , at an intensity of 8.7t/MWh; we have also seen documentation for other batteries with a usage intensity of 7.25t of V (12.94t of V_2O_5) per MWh of capacity.
- ◆ Other recent developments include a US\$200 million, 15MW/60MWh facility by Sumitomo on the Japanese island of Hokkaido.

Figure 13: VRFB schematic



Source: Australian Vanadium

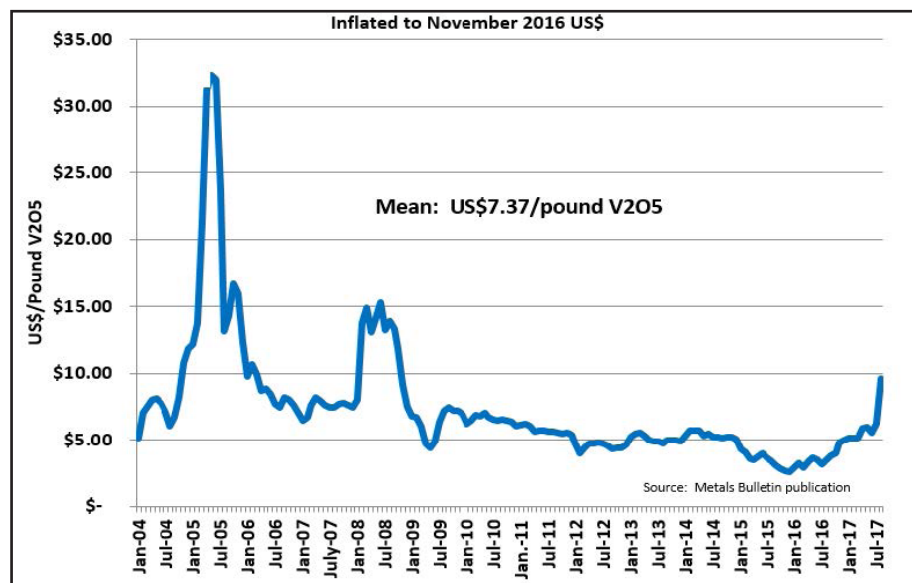
- ◆ Development of VRFBs has been partly hamstrung by the lack of a suitable battery grade V_2O_5 supply – batteries require a higher purity product than that used in steelmaking, and hence arises the opportunity for manufacturers of high purity material.
- ◆ Some forecasts see the Australian energy storage market reaching 3,000MWh by 2030 – should the VRFB penetration reach an estimated 30% of the market this will result in the requirement of 900MWh of VRFB capacity over the same period.
- ◆ Australia is an ideal market for fringe-of-grid and off-grid storage facilities given the extended power networks and large off-grid areas, thus potentially providing a domestic market for any V_2O_5 producers.
- ◆ Assuming a capital intensity of A\$1,000,000/MWh, this equates to a A\$900 million market, and using an average V_2O_5 intensity of 10t/MWh, this results in a potential domestic demand for an additional 9,000t of V_2O_5 by 2030.
- ◆ There is also significant forecast demand (~1/3 of that for VFRB's) for vanadium in Li-ion batteries.

Pricing

- ◆ Figure 11 above highlights the recent price recovery to over US\$30/kg (US\$14 - US\$14.50/lb) largely due to de-stocking of inventories over recent years and supply constraints due to rationalisation of the iron ore industry in China (with vanadium being a major by-product) along with environmental constraints leading to a sharp decline in production
- ◆ Figure 14 presents a longer term chart of real V_2O_5 prices adjusted to November 2016, and shows the commencement of the recent recovery, which has followed a period of sustained falls in prices, largely post the GFC.
- ◆ The 30 year average price has been US\$11/kg V_2O_5 , with the inflation adjusted mean since 2014 being ~US\$16/kg as shown in Figure 14 (note that Figure 14 is in US\$/pound, with one kg = 2.205 pounds).
- ◆ It is expected that pricing may remain reasonably strong, although as shown in Figure 11 vanadium pricing has a history of volatility.
- ◆ The market is not particularly transparent, and also prices do not correlate with steel production even though this is the key demand driver.

- ◆ As mentioned earlier wide acceptance of VRFBs may go some way to breaking the price “spike-collapse” pattern over recent times, due to the requirement for a consistent supply of high purity V_2O_5 for the electrolyte.

Figure 14: FeV price chart



Source: Largo presentation

DISCLAIMER

(a) Disclaimer

The information, reports, financial models, forecasts, strategies, audio broadcasts and other media (referred to as "Content" throughout this Legal Notice), provided on this web site has been prepared and issued by Altavista Research Pty Ltd trading as Independent Investment Research "IIR," Independent Investment Research Holdings Pty Ltd (ACN 155 226 074), as authorised to publish research under an Australian Financial Securities Licence (AFSL No 420170) which allows Independent Investment Research to offer financial service advice to retail and wholesale clients. Users of this web site should not act on any Content without first seeking professional advice. Whilst the Content contained on this web site has been prepared with all reasonable care from sources which we believe are reliable, no responsibility or liability is accepted by Independent Investment Research, for any errors or omissions or misstatements however caused. Any opinions, forecasts or recommendations reflect our judgement and assumptions at the date of publication or broadcast and may change without notice. Content on this web site is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. We are not aware that any user intends to rely on the Content provided or of the manner in which a user intends to use it. In preparing our Content it is not possible to take into consideration the investment objectives, financial situation or particular needs of any individual user.

Access by any user to this website does not create a client relationship between Independent Investment Research and the user. Users seeking to invest must obtain individual financial advice to determine whether recommendations are appropriate to their investment objectives, personal financial situation or particular needs, before acting on any recommendations. Any Content is not for public circulation or reproduction, whether in whole or in part and is not to be disclosed to any person other than the intended user, without the prior written consent of Independent Investment Research.

(b) Disclosure of Interest

General

Independent Investment Research, its officers, employees, consultants and its related bodies corporate have not and will not receive, whether directly or indirectly: any commission; fee; benefit; or advantage, whether pecuniary or otherwise, in connection with making any recommendation contained on this web site. Independent Investment Research, discloses that from time to time, it or its officers, employees and its related bodies corporate: may have an interest in the securities, directly or indirectly, which are the subject of these recommendations; may buy or sell securities in the companies mentioned in the Content; may effect transactions which may not be consistent with the recommendations in the Content; may have directorships in the companies mentioned in the Content; and/or perform paid services for the companies that are the subject of such recommendations.

However, under no circumstances, has Independent Investment Research been influenced, either directly or indirectly, in making any recommendations contained on this web site.

Corporate Research

Independent Investment Research has or may have, received a fee either directly by a company itself or by a third party, to provide coverage and/or corporate research (the "Fee"). Where a Fee has been received, Independent Investment Research does not publish:

Buy / Hold / Sell recommendations for the security or managed investment schemes.

(c) Copyright Protection

All Content at this web site is protected by copyright. Apart from any use permitted under the Copyright Act (Cth) 1968, you must not copy, frame, modify, transmit or distribute the material at this web site, without seeking the prior written consent of the copyright owner. Content on this web site is owned by the business Independent Investment Research. Users are prohibited from copying, distributing, transmitting, displaying, publishing, selling, licensing, creating derivative works or using any content on the web site for commercial or public purposes

Copyright 2010 Independent Investment Research. All rights reserved.

(d) Trade Marks

The trade marks and logos displayed on this web site belong to Independent Investment Research or other parties. Such trade marks include registered trade marks and trade marks pending registration. Users are prohibited from using any of these trade marks, without seeking the prior written consent of IIR or such third party, which may own the trade mark content on this web site.

(e) Limitation of Liability

To the fullest extent permitted by the law, Independent Investment Research and any of its officers, employees, agents, consultants or related bodies corporate disclaim any liability, whether based in contract, tort, strict liability or otherwise, for any direct, indirect, incidental, consequential or special damages arising out of or in any way connected with the use of any Content made available on this web site by any person or entity.

(f) No Warranties

Independent Investment Research does not make any claims, promises, guarantees, representations or warranties regarding the accuracy, completeness or fitness for purpose of the Content made available on this web site. All information on this web site is provided to you on an as is basis, without warranty of any kind either express or implied. To the extent that research can be provided by third parties, Independent Investment Research makes no warranty or representation as to the accuracy or completeness of such information displayed on this site, and accepts no liability for errors or omissions arising from such third party information. To the fullest extent permitted by law, under no circumstances will Independent Investment Research be liable for any loss or damage caused by users reliance upon information obtained through this web site. It is the responsibility of the user to evaluate the accuracy, completeness or usefulness of any information, opinion, general advice or other content made available through this web site. Furthermore, Independent Investment Research does not warrant or represent that this web site is error free or free from viruses or defects. A user must do all that is necessary (including using virus checking software) to satisfy itself that accessing this website will not adversely affect its system.

For further information, please contact IIR at: client.services@independentresearch.com.au



Independent Investment Research (Aust.) Pty Limited

SYDNEY OFFICE

Level 1, 350 George Street
Sydney NSW 2000
Phone: +61 2 8001 6693
Main Fax: +61 2 8072 2170
ABN 11 152 172 079

MELBOURNE OFFICE

Level 7, 20–22 Albert Road
South Melbourne VIC 3205
Phone: +61 3 8678 1766
Main Fax: +61 3 8678 1826

DENVER OFFICE

355 S Teller Street
Suite 200
Lakewood 80226
Denver Colorado USA
Phone: +1 161 412 444 724

MAILING ADDRESS

PO Box H297 Australia Square
NSW 1215